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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,736	02/11/2002	Steven G. Goldstein	1442.1	5166

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EXAMINER

AMARANTIDES, JOHN

ART UNIT PAPER NUMBER

2875

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,736

Applicant(s)

GOLDSTEIN ET AL.

Examiner

John Amarantides

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5 and 19 is/are rejected.
- 7) ☒ Claim(s) 4, 6-18 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s): ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Figure 1, reference number (3). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "17" and "97" have both been used to designate resistor. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "5" has been used to designate both immiscible liquid and DC reference voltage. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Page 5, line 18 identifies inclusively reference numbers (33 – 43), of which 39 – 41 and 43 are not shown in the drawings, and on page 6, line 29 and page 7, line 1 reference number (59) is not shown in the drawings. A proposed drawing correction or corrected drawings are required in reply to the

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Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

- a. Page 5, line 19, the reference number (22) for the amplifier should be (32).
- b. Page 8, line 19, the reference number (6) and line 21 the reference number (96) are used for the differentiator, which should be (36). The capacitor on page 8, line 29 is also identified with reference number (96).
- c. Page 9, line 8, the reference number (78) for the light should be (79).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 – 3 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US006447138B1) in view of Lin (US005272604A).

- a. In regard to claims 1 – 3, Yang teaches all the structural elements of the invention except two immiscible liquids having different visual characteristics and at least one of different specific gravity and viscosity. Yang in Figures 3 and 4 discloses a transparent main body (10), base case (20), controlling circuit (30), multiple color light emitting sources (15), air pump (14) speakers (21) and five function keys (25a – e). The function

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keys are used to control volume and selection of music, air pump (14) and lights (15) through the controlling circuit (30) to create a unique water dance. Lin in the Abstract and Figure 2 discloses a vessel filled with two liquids of different specific gravities, a centrifugal impeller (13) with magnetic drive motor and partition board (11) with liquid intakes and outlets (111, 112). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to use Lin's two liquids of different specific gravities and the centrifugal impeller (13) with magnetic drive motor in place of Yang's liquid and air pump in order to improve the visual display by varying the light intensity, volume level and impeller speed affecting the size and shape of the liquids for viewer pleasure.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US006447138B1) in view of Lin (US005272604A) as applied to claim 1 above, and further in view of Kaviani (US005778576A).

a. In regard to claim 5, Yang and Lin teach all the structural limitations of the invention except the use of liquids with different opacities. Kaviani in Column 2, lines 36 – 56 discloses the use of liquids with different densities and colors or shades. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to use Kaviani's two liquids of different densities and colors/shades in place of Lin's liquids in order to improve the visual display by varying the light intensity, volume level and impeller speed affecting the size and shape of the colored liquids for viewer pleasure.

Allowable Subject Matter

9. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

a. In regard to claim 4, the references of the prior art of record fail to teach or suggest the combination of the limitations as set forth in claim 4, and specifically comprising the limitation of the use of a spout in the bottom of the container to efficiently distribute one of the liquids upward through the other liquid, where the liquids have different specific gravities with the heavier liquid falling through the lighter liquid.

b. Claims 6 – 9 and 16 – 18 would be allowable for the reasons given in claim 4 because of their dependency status from claim 4.

11. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

a. In regard to claims 10 and 11, the references of the prior art of record fail to teach or suggest the combination of the limitations as set forth in claims 10 and 11, and specifically comprising the limitation of the use of a microphone in conjunction with a filter and amplifier system to utilize external music and sound to be controlled via the circuit board and used to control the pump.

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- b. Claims 12 and 13 would be allowable for the reasons given in claim 11 because of their dependency status from claim 11.
- 13. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 14. The following is a statement of reasons for the indication of allowable subject matter:
 - a. In regard to claim 14, the references of the prior art of record fail to teach or suggest the combination of the limitations as set forth in claim 14, and specifically comprising the limitation of the use of an electric pump with first and second sub assemblies with drive shaft and magnetic drive in a coaxial arrangement and an impeller with a liquid inlet and outlet.
 - b. Claim 15 would be allowable for the reasons given in claim 4 because of their dependency status from claim 14.
- 15. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 16. The following is a statement of reasons for the indication of allowable subject matter:
 - a. In regard to claim 20, the references of the prior art of record fail to teach or suggest the combination of the limitations as set forth in claim 20, and specifically comprising the limitation of a method to co-mingle by injection of one liquid in an upwardly direction into the second liquid so that the display is a geyser.

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Conclusion


17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to liquid display lamps:


- a. US006241359B1 to Lin
- b. US005913595A to Lin
- c. US003387396 to Smith

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Amarantides whose telephone number is 703-305-4013. The examiner can normally be reached 8:00am-4:30pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Sember can be reached on 703-308-1938. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3329.

JA 
March 10, 2003


THOMAS M. SEMBER
PRIMARY EXAMINER